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Nuclear power now? Seminar at BRACU

Dr. Abdul Matin, a former Chief Engineer of the Bangladesh Atomic Energy Commission was the key speaker of a seminar titled “Should Bangladesh Go for Nuclear Power Now?” that was held by BRAC University Department of Mathematics and Natural Sciences (MNS).

Starting with the fission of a uranium-235 nucleus, Dr. Abdul Matin explained how nuclear reactors worked and described the different types of nuclear power reactors, including Generation-III reactors, now in operation. He opined that present day nuclear reactors incorporated unique, reliable and tested safety features to minimize nuclear incidents.

“With depleting fossil fuels and growing concerns about emission of greenhouse gases, nuclear energy has become a viable alternative source of generation of electricity. It competes favourably with other forms of electricity generation, except where low-cost fossil fuels are available. Because of the paucity of indigenous energy resources, there are good prospects for nuclear power in Bangladesh and it can supply up to 25% of the peak power demand in Bangladesh by 2030”, he added.

According to Dr. Matin, Bangladesh Atomic Energy Commission (BAEC) inherited a corps of highly trained nuclear engineers and scientists after independence. But it took practically no steps to replace them after their retirement. There are, therefore, serious doubts if BAEC is capable of managing the construction and operation of nuclear power plants. Dr. Matin recommended that a separate nuclear power authority should be formed, like in India, with experienced nuclear engineers to own, build and operate nuclear power reactors in Bangladesh.

Dr Matin informed that Bangladesh and Russia signed a memorandum of understanding (MoU) in May 2009 and several other agreements later for setting up two nuclear power reactors, each of 1000 MWe, at Rooppur. BAEC appointed a sister organization of the Russian reactor supplier as the consultant for the preparation of a feasibility report at a cost of $ 45.9 million and for completion of the first phase of work at a cost of $ 265 million. He questioned the wisdom of appointing a sister organization as a consultant and for spending $265 million before completion of the feasibility report and in violation of the Bangladesh Atomic Energy Regulatory Act, 2012. He informed that there were concerns about the safety of the VVER-1000 reactors in East Europe and elsewhere as several contracts for the construction of similar reactors were cancelled. He suggested that Bangladesh should go for building VVER-1200 reactors, instead of VVER-1000 reactors, at Rooppur for improved safety.

He recommended that Bangladesh should first build necessary manpower before initiating any nuclear power programme. “We are not against nuclear power. We want to build a safe, reliable and economically viable nuclear power plant at Rooppur. We can build and operate nuclear power plants safely provided we first build the required manpower, buy the nuclear reactors with the state-of the-art safety features and religiously apply the nuclear safety regulations”, and thus he concluded. A lively question and answer session followed the presentation.

Professor A. A. Z. Ahmad, Chairperson of the MNS Department acted as the moderator. Professor Naiyyum Choudhury, Professor Mofiz Uddin Ahmed, faculty members and students of the MNS Department and other departments of BRACU participated in the seminar. Mozammel Haque, Former Chairman, BAEC, Obaidul Awal, Former Chief Engineer of BAEC and Dr. Anisur Rahman, a radiation physicist working in UK also attended the session.

Short biography of the speaker:

Dr. Abdul Matin graduated in electrical engineering from the erstwhile AhsanullahEngineeringCollege (now BUET) in 1961. He obtained a D.I.C in nuclear power in 1963 from Imperial College of Science, Technology and Medicine, London, UK and a Ph.D in nuclear engineering in 1965 from the University of Liverpool, UK.

He served the Pakistan/Bangladesh Atomic Energy Commission for sixteen years. He was Director of the Nuclear Power Division of the Pakistan Atomic Energy Commission and the first Project Director of the Atomic Energy Research Establishment (AERE) at Savar. He held the positions of Chief Engineer and Acting Secretary of the Bangladesh Atomic Energy Commission (BAEC). In 1978 he joined the KingAbdulazizUniversity, Jeddah, Saudi Arabia as an Associate Professor.

Dr. Matin has a large number of research publications. His research interests include dynamic studies of nuclear reactors, reactor control systems, nuclear reactor simulation, nuclear power planning studies and nuclear reactor systems.

He regularly writes Op-Ed columns in national newspapers and published five books including “A Passage to Freedom’, “Rooppur & the Power Crisis” and “Around Half the World in Sixty Years.”